



POTATO STOCKS

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POTATO STOCKS DOWN SIX PERCENT FROM YEAR EARLIER

An estimated 209 million cwt of potatoes were in storage in the fall producing areas on December 1, 1979. This was a 6 percent reduction from December 1, 1978 but 1 percent more than the comparable 1977 total.

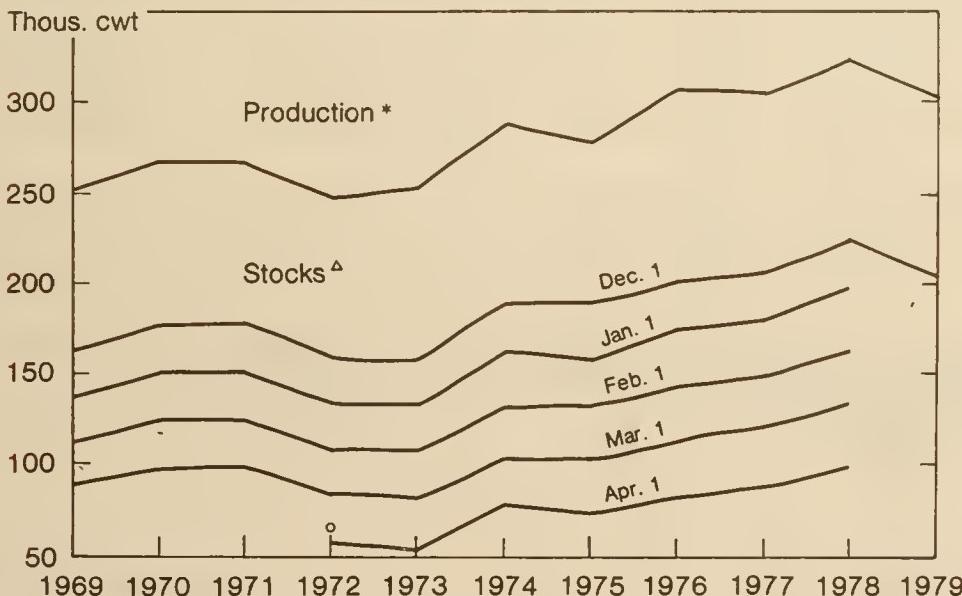
The regional breakdown is as follows: The seven Eastern States had 35.8 million cwt in storage, 14 percent more than a year ago and 3 percent above the 1977 total. Stocks in Maine were 22 percent greater than last year. The eight Central States had stocks totaling 41.3 million cwt, down 15 percent from 1978 and 9 percent less than the 1977 total. North Dakota stocks were 26 percent less than a year earlier. In the eight Western States, potato stocks equaled 132 million cwt, an 8 percent reduction from 1978 but 4 percent greater than 1977. Idaho stocks dropped 12 percent from 1978 while Oregon and Washington totals declined 5 percent and 4 percent, respectively.

(Comments continued on page 10)

Effective with this issue, December Potato Stocks includes the acreage, yield, and production estimates and the objective yield survey data formerly published in the December Crop Production report.

See pages 5-10 for these data.

Fall Potatoes: Production and Stocks



* Production by year

△ Stocks by months following harvest.

○ First year of estimate

USDA

Neg ESCS 3173-79 (11)

NOTE: Stocks are defined as the quantity remaining in storage for all purposes and uses, including shrinkage and waste and other losses that occur after the date of each report. Sales of fall potatoes for all purposes generally account for about 90 percent of the total fall production. Shrinkage and loss and home use account for the remaining 10 percent.

TABLE 1. FALL POTATOES: PRODUCTION, DECEMBER 1, JANUARY 1, FEBRUARY 1, MARCH 1, APRIL 1, AND MAY 1 TOTAL STOCKS, CROPS OF 1969-79 IN THE FALL STATES

YEAR	PRODUCTION	TOTAL STOCKS FOLLOWING YEAR				
		DEC 1	JAN 1	FEB 1	MAR 1	APR 1
1,000 CWT						
1969	252,561	162,800	138,140	111,510	87,620	
1970	267,827	175,145	150,030	122,230	96,780	
1971 ^{1/}	266,707	176,390	151,435	124,375	98,485	
1972	249,320	158,565	134,420	107,310	83,380	58,250
1973	254,379	157,837	133,665	106,615	81,165	55,870
1974	289,342	187,935	163,095	133,425	104,116	75,905
1975	278,391	185,965	159,140	131,685	104,050	77,640
1976	307,427	201,980	174,775	143,925	114,140	81,875
1977	307,064	206,690	178,205	149,690	120,970	89,205
1978	323,498	223,290	196,080	164,666	133,247	99,808
1979	301,628	209,180				65,116

^{1/} BEGINNING WITH 1971, LATE SUMMER PRODUCTION FOR N Y - L I, WIS AND WASH HAS BEEN CLASSIFIED AS FALL.

TABLE 2. POTATOES USED FOR PROCESSING ^{1/}, SEVEN STATES 1978 AND 1979 CROP ^{2/}

STATE	STORAGE SEASON	TO DEC 1	TO JAN 1	TO FEB 1	TO MAR 1	TO APR 1	TO MAY 1	ENTIRE SEASON	
								:	:
1,000 CWT									
IDAHO AND MALHEUR CO., OREG	1978-79	15,720	21,215	26,055	31,130	37,095	43,305	61,290	
	1979-80	14,040							
MAINE ^{3/}	1978-79	2,280	2,800	3,670	4,390	5,355	6,205	8,140	
	1979-80	1,980							
WASH AND OTHER AREAS, OREG	1978-79	15,075	18,380	22,230	26,035	30,125	34,770	44,295	
	1979-80	13,510							
OTHER STATES ^{4/}	1978-79	2,625	3,520	4,420	5,290	6,255	7,155	10,540	
	1979-80	2,625							
TOTAL	1978-79	35,700	45,915	56,375	66,845	78,830	91,435	124,265	
	1979-80	32,155							

^{1/} TOTAL QUANTITY RECEIVED AND USED FOR PROCESSING REGARDLESS OF THE STATE IN WHICH THE POTATOES WERE PRODUCED. DOES NOT INCLUDE QUANTITIES USED FOR POTATO CHIPS IN MAINE, MICH OR MINN.

^{2/} 1978-79 REVISED.

^{3/} INCLUDES MAINE GROWN POTATOES ONLY.

^{4/} MICH, MINN AND N DAK.

TABLE 3. POTATOES: PRODUCTION AND TOTAL STOCKS OF FALL POTATOES HELD BY GROWERS,
PROCESSORS, AND LOCAL DEALERS ON DECEMBER 1, 1978 AND DECEMBER 1, 1979

STATE	CROP OF 1978				CROP OF 1979			
	PRODUCTION	TOTAL STOCKS DEC 1, 1978	DEC 1 STOCKS		PRODUCTION	TOTAL STOCKS DEC 1, 1979	DEC 1 STOCKS	
			AS % OF PRODUCTION	PERCENT			AS % OF PRODUCTION	PERCENT
		1,000 CWT				1,000 CWT		
CALIF	6,055	4,000	66		6,364	4,150		65
COLO	11,275	8,300	74		11,455	8,150		71
CONN	437	345			418	315		
IDAH0	100,310	78,000	78		88,200	68,500		78
IND	936	275	29		1,071	305		28
MAINE	25,960	19,700	76		28,750	24,000		83
MASS	810	440	54		748	530		71
MICH	8,500	5,900	69		8,000	5,200		65
MINN	14,910	12,000	80		12,920	10,500		81
MONT	2,088	1,900	91		1,800	1,650		92
NEBR	1,800	1,300	72		1,482	1,200		81
N Y - L I	6,175	3,000	49		6,431	3,300		51
- UPSTATE	6,500	3,300	51		6,463	3,900		60
N DAK	22,400	17,000	76		18,240	12,500		69
OHIO	2,215	950	43		2,400	1,250		52
OREG	28,488	17,700	62		25,310	16,900		67
PA	6,250	4,500	72		6,000	3,700		62
R I	984	1/			897	1/		
S DAK	1,190	870	73		1,203	870		72
UTAH	1,127	800	71		1,300	1,050		81
VT	176	120	68		147	90		61
WASH	50,685	32,000	63		48,925	30,800		63
WIS	17,325	10,100	58		17,010	9,450		56
WYO	1,462	790	54		1,144	870		76
23 STATE TOTAL 2/	318,058	223,290	70		296,678	209,180		71

1/ R I INCLUDED IN CONN. 2/ EXCLUDING NEV FOR WHICH NO STOCKS ESTIMATES ARE MADE. NEV 1978
PRODUCTION 5,440,000 CWT AND 1979 PRODUCTION 4,950,000 CWT.

RELIABILITY OF DECEMBER 1 PRODUCTION AND STOCKS ESTIMATES

To assist users in evaluating the reliability of production and stocks estimates in this report, the "Root Mean Square Error", a statistical measure based on past performance, is shown below. This is computed by expressing the deviations between the December 1 estimates and the final estimates as a percent of the final estimates and averaging the squared percentage deviations for the 1959-78 twenty year period; the square root of this average becomes statistically the "Root Mean Square Error". Probability statements can be made concerning expected errors in the current estimates relative to the final estimates, assuming that factors affecting this year's estimates are not different from those of recent years. For example, the "Root Mean Square Error" for the December 1 stocks estimate is 1.9 percent. This means that the chances are 2 out of 3 that the current estimate of 209 million cwt will not be above or below the final estimate by more than 1.9 percent or approximately 4.0 million cwt. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.3 percent or approximately 6.9 million cwt.

Also shown below is the 10-year (1969-78) record of the differences between the December 1 production and stocks estimates and the final estimates. Using stocks again as an example, changes between the December 1 estimate and the final estimate during the 10 years have averaged 3.31 million cwt, ranging from 0.55 million to 6.54 million cwt. During this 10-year period the December 1 estimate has been below the final estimate every year.

RELIABILITY OF DECEMBER 1 FALL POTATO ESTIMATES

CROP AND ESTIMATE	ROOT MEAN SQUARE ERROR		TEN YEAR RECORD OF DIFFERENCES BETWEEN DEC 1 AND FINAL ESTIMATE					
	PERCENT:	LEVEL	AVERAGE	SMALLEST	LARGEST	BELOW		
						FINAL	ABOVE FINAL	
			MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT	
FALL POTATO STOCKS	1.9	3.3	6.90	3.31	0.55	6.54	10	0
FALL POTATO PRODUCTION	1.4	2.4	7.24	3.62	1.63	6.45	10	0

STATE	POTATO TYPES			TOTAL
	REDS	WHITES	RUSSETS	
	PERCENT			
COLO	12	8	80	100
IDAHO			1/ 2/100	100
MAINE		2/76	24	100
MICH 4/				
MINN	26	47	27	100
N Y		2/ 3/100		100
N DAK	32	55	13	100
OREG			1/ 2/100	100
PA		2/100		100
WASH			1/ 2/100	100
WIS	10	30	60	100
11 STATE TOTAL:	4	24	72	100

1/ INCLUDES SMALL QUANTITIES OF WHITES, LESS THAN 5 PERCENT OF TOTAL.

2/ INCLUDES SMALL QUANTITIES OF REDS, LESS THAN 5 PERCENT OF TOTAL.

3/ INCLUDES SMALL QUANTITIES OF RUSSETS, LESS THAN 5 PERCENT OF TOTAL.

4/ CANNOT BE PUBLISHED TO AVOID DISCLOSURE OF INDIVIDUAL OPERATIONS.

**POTATO STOCKS QUALITY SURVEY
MINNESOTA AND NORTH DAKOTA (RED RIVER VALLEY)**

The potato stocks quality information contained in this report is based on a survey conducted by the Economics, Statistics, and Cooperatives Service in the Red River Valley of North Dakota and Minnesota. Sample bags of potatoes selected on a random basis were placed in storages at harvest time. Subsequent reports will be issued each month during the 1979-80 storage season showing the cumulative average grade and weight loss for potatoes removed from storage at the time of shipment. At the request of the Red River Valley Potato Growers Association, samples were selected only for processing potatoes.

This report does not include information for Russet potatoes for the 1979-80 season as an insufficient number of samples had been recovered by December 1.

The cooperation of the many potato growers and storage operators who assisted on this project is greatly appreciated.

POTATO STOCKS QUALITY SURVEY, RED RIVER VALLEY, 1979-80, AVERAGE GRADE OF POTATOES

CROP	NO. 1	NO. 2	CULLS	NO. 1 B'S 1/	WEIGHT LOSS	
	INCLUDING B'S	AT HARVEST	AT HARVEST	AT HARVEST		
	AT STORAGE	STORAGE 2/	AT HARVEST	STORAGE 2/		
PERCENT						
SAMPLES RECOVERED BEFORE DECEMBER 1, 1979						
WHITE	82	70	8	12	10	
RUSSET	78		7		15	
ALL SAMPLES 1978-79 STORAGE SEASON-FINAL 3/						
WHITE	88	76	6	10	6	
RUSSET	81	70	11	16	8	

1/ NO. 1 B'S ARE POTATOES THAT MEET THE U.S. NO. 1 GRADE BUT DO NOT MEET MINIMUM SIZE STANDARDS FOR THE AREA: RED AND WHITE VARIETIES - 1 1/2-2 1/4 INCHES IN DIAMETER AND RUSSET VARIETIES - UNDER 2 INCHES IN DIAMETER OR LESS THAN 4 OUNCES.

2/ DATA NOT AVAILABLE FOR THE 1979-80 SEASON. INSUFFICIENT NUMBER OF SAMPLES REMOVED FROM STORAGE PRIOR TO DECEMBER.

3/ MATCHED SAMPLES, QUALITY AT HARVEST COMPARED WITH QUALITY AFTER STORAGE FOR 1978-79 SEASON.

FALL POTATOES

STATE	AREA HARVESTED				YIELD				PRODUCTION			
	1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1979
	1,000 ACRES				CWT				1,000 CWT			
CALIF	17.0	17.3	17.2	350	350	370	5,950	6,055	6,364			
COLO	36.5	41.0	39.5	260	275	290	9,490	11,275	11,455			
CONN	1.9	1.9	1.9	245	230	220	466	437	418			
IDAHO-10 SW CO	30.0	32.0	30.0	300	325	340	9,000	10,400	10,200			
-OTHER CO	330.0	333.0	300.0	240	270	260	79,200	89,910	78,000			
IND	4.7	3.9	4.2	240	240	255	1,128	936	1,071			
MAINE	118.0	118.0	115.0	240	220	250	28,320	25,960	28,750			
MASS	3.7	3.6	3.4	240	225	220	888	810	748			
MICH	32.0	34.0	32.0	275	250	250	8,800	8,500	8,000			
MINN	72.0	71.0	68.0	180	210	190	12,960	14,910	12,920			
MONT	8.4	8.7	7.5	240	240	240	2,016	2,088	1,800			
NEBR	5.0	7.2	5.7	240	250	260	1,440	1,800	1,482			
NEV	14.0	17.0	15.0	341	320	330	4,760	5,440	4,950			
N H 1/	.3			235			71					
N Y-ONG IS	22.8	23.3	21.8	315	265	295	7,182	6,175	6,431			
-UPSTATE	20.6	25.0	23.5	260	260	275	5,356	6,500	6,463			
N DAK	133.0	128.0	114.0	160	175	150	21,600	22,400	18,240			
OHIO	11.2	10.3	10.0	245	215	240	2,744	2,215	2,400			
OREG-MALHEUR CO	10.0	10.8	13.0	355	350	370	3,550	3,790	4,810			
-OTHER CO	50.0	56.4	50.0	440	435	410	22,000	24,708	20,500			
PA	25.5	25.0	24.0	250	250	250	6,375	6,250	6,000			
R I	4.1	4.1	3.9	230	240	230	943	984	897			
S DAK	5.9	7.0	6.5	150	170	125	1,062	1,190	1,203			
UTAH	5.9	4.6	5.2	240	245	250	1,415	1,127	1,300			
VT	1.0	.8	.7	235	220	210	235	176	147			
WASH	110.0	109.0	103.0	460	465	475	50,600	50,585	48,925			
WIS	55.5	55.0	54.0	325	315	315	18,038	17,325	17,010			
WYO	6.7	6.8	5.2	220	215	220	1,474	1,452	1,144			
TOTAL	1,139.7	1,155.1	1,074.2	270	280	281	307,064	323,498	301,628			

1/ ESTIMATES DISCONTINUED AFTER 1977 CROP.

AREA PLANTED, FALL POTATOES

STATE	1977	1978	1979
1,000 ACRES			
CALIF	17.0	17.3	17.4
COLO	37.0	41.5	40.0
CONN	2.1	1.9	1.9
IDAH0 - 10 SW CO	30.0	32.0	30.0
- OTHER CO	335.0	338.0	305.0
IND	4.8	4.0	4.3
MAINE	124.0	119.0	116.0
MASS	3.8	3.6	3.5
MICH	34.0	35.0	33.0
MINN	76.0	73.0	70.0
MONT	8.5	8.8	7.5
NEBR	6.2	7.3	6.0
NEV	14.0	17.0	15.0
N H 1/	.3		
N Y - LONG ISLAND	23.0	23.5	22.0
- UPSTATE	27.5	26.0	25.5
N DAK	137.0	130.0	121.0
OHIO	11.7	10.7	10.4
OREG - MALHEUR CO	10.1	11.0	13.5
- OTHER CO	50.2	58.5	52.0
PA	28.0	26.0	25.0
R I	4.1	4.1	4.0
S DAK	6.1	7.5	7.3
UTAH	6.0	4.7	5.3
VT	1.0	.8	.7
WASH	110.0	109.0	103.0
WIS	58.0	59.0	57.0
WYO	7.0	7.1	5.5
TOTAL	1,172.4	1,176.3	1,101.8

1/ ESTIMATES DISCONTINUED AFTER 1977 CROP.

1979 POTATO OBJECTIVE YIELD SURVEY

The Economics, Statistics and Cooperatives Service conducted potato objective yield surveys in the 11 major fall producing States in 1979. Sample plots were located in potato fields that were selected on a random basis using a scientifically designed sampling procedure. Field workers recorded counts and measurements from these fields just prior to and immediately after harvest.

The sample data and the derived percentages from the objective yield surveys presented in the following tables are presented to provide current information about the crop and are not official estimates.

POTATOES: PERCENTAGE OF NET WEIGHT BY SIZE GROUPS, 1978-79 1/

TYPE, STATE AND YEAR	UNDER	1 1/2"-	1 7/8"-	2"-	2 1/4"-	2 1/2"-	3 1/2"	TOTAL
	1 1/2"	UNDER	1 7/8"	2"	2 1/4"	2 1/2"	3 1/2"	
PERCENT								
<u>ROUND RED:</u>								
MINN	1978	*	1	4	10	15	66	4
	1979	*	2	3	10	15	66	4
N OAK	1978	*	2	3	8	13	62	12
	1979	*	*	2	6	10	71	11
:								
<u>ROUND WHITES:</u>								
MAINE	1978	1	6	4	12	17	53	7
	1979	2	7	5	12	18	50	6
MICH	1978	*	4	3	11	12	56	14
	1979	1	5	4	11	17	54	8
MINN	1978	*	2	3	.9	12	62	12
	1979	*	1	3	8	13	66	9
N Y	1978	1	4	3	9	14	53	16
	1979	1	5	3	11	14	54	12
N OAK	1978	*	2	2	7	11	65	13
	1979	*	*	1	7	10	64	18
PA	1978	*	4	3	11	15	56	11
	1979	1	4	3	11	15	56	10
WIS	1978	2	6	4	13	19	52	4
	1979	1	6	4	12	20	53	4
:								

SEE FOOTNOTES ON PAGE 8.

CONTINUED

POTATOES: PERCENTAGE OF NET WEIGHT BY SIZE GROUPS, 1978-79 1/ CONTINUED

TYPE, STATE AND YEAR	UNDER 1 1/2"	1 1/2"- UNDER 1 7/8"	1 7/8"- OR LESS : THAN 4 OZ:	: UNDER 2" : BUT OVER 4 OZ OR 2" : AND OVER 8 OZ: : THAN 6 OZ:	UNDER 2"	BUT OVER 4 OZ OR 2"	6 DZ-	8 OZ-	10 OZ-	12 OZ-	14 OZ AND OVER	TOTAL						
					UNDER	UNDER	UNDER	UNDER	UNDER	UNDER	UNDER							
					1 1/2"	1 7/8"	OR LESS	: THAN 4 OZ:	BUT LESS	: THAN 6 OZ:								
PERCENT																		
RUSSETS:																		
COLO																		
1978:	1	8	6	32	20	14	8	4	7	100								
1979:	1	7	13	30	20	12	7	3	7	100								
IDAH0																		
1978:	1	9	8	27	17	12	9	6	11	100								
1979:	*	6	7	27	19	14	10	6	11	100								
MAINE																		
1978:	1	8	6	30	20	12	9	6	8	100								
1979:	2	10	8	36	19	11	6	3	5	100								
MICH																		
1978:	*	7	4	31	20	14	8	6	10	100								
1979:	1	8	5	30	19	11	8	7	11	100								
MINN																		
1978:	1	7	11	23	18	14	8	6	12	100								
1979:	*	5	8	29	20	15	8	5	10	100								
N DAK																		
1978:	2	8	10	27	17	20	7	5	4	100								
1979:	*	1	3	34	19	14	12	8	9	100								
DREG																		
1978:	1	5	5	24	19	14	10	7	15	100								
1979:	*	1	12	19	18	14	11	8	17	100								
WASH																		
1978:	*	5	6	23	18	14	10	8	16	100								
1979:	*	1	13	19	17	15	11	7	17	100								
WIS																		
1978:	1	11	8	34	19	12	6	4	5	100								
1979:	1	10	7	34	19	13	8	4	4	100								

1/ PERCENTAGES SHOWN ADJUSTED TO ALLOW FOR HARVESTING LOSS.
 * LESS THAN 1/2 PERCENT.

POTATOES: HARVEST LOSS BY TYPE OF POTATOES, 1978-79 1/

STATE AND YEAR		ROUND REDS	ROUND WHITES	RUSSETS	ALL TYPES
CWT PER ACRE					
COLO	1978:	21	2/	21	21
	1979:	2/	2/	34	34
IDAHO	1978:			31	31
	1979:		2/	33	34
MAINE	1978:		23	27	24
	1979:	2/	23	34	26
MICH	1978:		28	35	32
	1979:	2/	25	35	26
MINN	1978:	22	28	35	32
	1979:	19	38	46	36
N Y	1978:	2/	27		27
	1979:	2/	28		27
N DAK	1978:	25	28	2/	29
	1979:	30	44	59	43
OREG	1978:	2/		31	31
	1979:			41	41
PA	1978:		30		30
	1979:	2/	38		37
WASH	1978:	2/	2/	35	35
	1979:	2/	2/	29	29
WIS	1978:	19	23	25	23
	1979:	2/	18	24	22

1/ POTATOES LEFT IN THE FIELD AT TIME OF HARVEST. 2/ INSUFFICIENT SAMPLE SIZE.

POTATOES: AVERAGE NUMBER OF HILLS PER ACRE, BY TYPE, 1978-79 1/

STATE AND YEAR	ROUND REDS		ROUND WHITES		RUSSETS	
	NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE
COLO	1978:	9	12,750	5	12,508	53
	1979:	6	12,565			56
IDAHO	1978:				317	12,863
	1979:	2/	2/	2/	327	12,665
MAINE	1978:			141		
	1979:	2/	2/	132	14,827	51
MICH	1978:	2/	2/	62	16,502	9,596
	1979:	2/	2/	69	12,243	57
MINN	1978:	28	11,103	56	12,161	34
	1979:	20	11,764	57	10,432	11,201
N Y	1978:	2/	2/	117	10,307	30
	1979:	2/	2/	104	12,452	9,980
N DAK	1978:	36	10,538	81	13,758	29
	1979:	43	10,031	99	9,581	10,103
OREG	1978:	2/	2/	2/	10,213	23
	1979:			2/	137	9,477
PA	1978:	2/	2/	83	12,489	13,913
	1979:			79	12,240	9,769
WASH	1978:	2/	2/	2/	12,489	13,793
	1979:	2/	2/	8	14,675	13,918
WIS	1978:	17	13,254	47	14,675	13,209
	1979:	12	11,914	44	12,707	10,831

1/ AVERAGE NUMBER OF HILLS PER ACRE BASED ON SAMPLE PLOTS SELECTED FOR OBJECTIVE YIELD MEASUREMENTS.

2/ INSUFFICIENT SAMPLE SIZE.

Disappearance of the 1979 crop to December 1 was 87.5 million cwt, a decrease of 8 percent from last year. This total includes 15.4 million cwt of potatoes that were lost as a result of dumping during grading, fed to livestock on potato farms, shrinkage (moisture loss), and discarded without grading.

The quantity of potatoes processed to December 1 in the seven major States amounted to 32.2 million cwt, a 10 percent decline from last year.

FALL PRODUCTION DECLINES SEVEN PERCENT

Production of fall potatoes in the U.S. is estimated at 302 million cwt (13.7 million metric tons), slightly above the November 1 forecast but 7 percent below the 323 million cwt (14.7 million metric tons) produced in 1978. This year's crop was harvested from 1.07 million acres (435 thousand hectares), 7 percent below last year. Yields Nationally are estimated at a record 281 cwt, up 1 cwt per acre from last year and 11 cwt per acre above 1977.

In the seven Eastern States, production is set at 49.9 million cwt, 5 percent above the 47.3 million cwt harvested in 1978. The average yield is placed at a record 257 cwt per acre, up significantly from the 234 cwt per acre average in 1978.

Production in the eight Central States, at 62.3 million cwt, is 10 percent below the 69.3 million cwt produced last year. Yield per acre is placed at 212 cwt per acre, 7 cwt below 1978.

In the nine Western States, production is placed at 189 million cwt, 8 percent below the 207 million cwt produced during 1978. Harvested area is set at 586 thousand acres compared with 637 thousand acres harvested last year. The average yield at 324 cwt per acre is 1 cwt per acre below last year.

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